

SIEC Briefing Paper on the Deployment of a Wireless Video Monitoring System by the Washington State Department of Transportation

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Description

The Washington State Department of Transportation is requesting the approval of the SIEC to conduct a short-term (3-year) project to deploy a video monitoring system that will measure traffic entering and exiting SR-16.

The scope of this project includes the deployment of five video cameras located at several locations west of the Tacoma Narrows Bridge and SR-16. Wireless segments of this project include the use of unlicensed microwave spectrum, and secure forms of 802.1x technology. Data from this location will be sent to the Washington State Patrol/Washington State Department of Transportation Traffic Monitoring Center in Parkland via an existing fiber link from the east end of the bridge.

Recommendations to the Committee

The SIEC Advisory Work Group and staff recommend that the SIEC approve this project.

Status

This project has been vetted at the September 1 SIEC Advisory Work Group Meeting and passed to the SIEC for approval. Construction is to begin in September 2004 to correspond with the new school year and the construction of the Tacoma Narrows Bridge project. The rapid deployment of technology by the Department of Transportation is often used to mitigate a health or accident condition.

Issues

Based upon the Information Services (and anticipated SIEC) Risk and Severity Matrix, this project is a very low risk, as it employs the use of 802.1x wireless technology, a proven and reliable means of communication. It is being presented to the SIEC as a direct result of the term "wireless." During the first meeting of the SIEC, the Committee approved a definition of "wireless" to include 802.1xx technologies. The SIEC Technical and Frequency Management Work Group as well as the SIEC Advisory Work Group will be seeking additional clarification from SIEC in the near future about this scope of this direction. Taken to the logical conclusion, any device that connects to a public safety network via 802.1x technology would then require approval of the SIEC. This frequency can be used for unlicensed microwave spectrum (5.8 MHz), 802.11x (2.4 MHz) equipment. These frequencies are also the frequencies that are used for cordless telephones, wireless headsets used in communication centers, as well as any number of "hotspots" where public safety agencies and the general public can connect to their networks as well as to the World Wide Web. Prior to asking for a clarification of scope, legal counsel will be consulted to assist staff and the work groups in determining if unlicensed spectrum is part of the specific responsibility of the SIEC. A full report will be presented at the next SIEC meeting.

Background

The Washington State Department of Transportation is reconstructing portions of SR-16 on the West end of the Tacoma Narrows along with the construction of the second Tacoma Narrows Bridge that was authorized by the legislature to reduce the congestion and improve traffic flows in that area. Real-time video monitoring is an integral component of that construction to gauge and measure the project performance in accordance with the desires of the citizens and the legislature for better accountability and improved performance measures.